

Agilent E4980A Precision LCR Meter

E4980A Data Transfer Program Operation Manual

Rev.01.20



Agilent Technologies

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Sample Program

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1. General information

Overview of the program

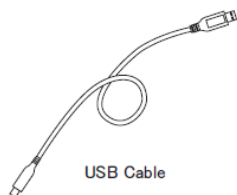
This program (a VBA macro for Microsoft Excel®) transfers the list sweep measurement data from the E4980A to a PC.

Supported model and firmware

Model	Firmware
E4980A Precision LCR Meter	Rev. 2.20

Required equipment

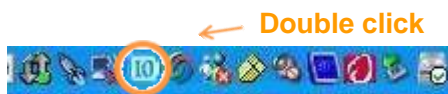
- Personal computer
 - * Microsoft Excel® installed
 - * Agilent I/O Libraries Suite 16 or higher installed
- Connection cable (Use either one of the following cables)
 1. USB cable (type mini-B for E4980A side and type A male for PC side, furnished as an E4980A standard accessory)



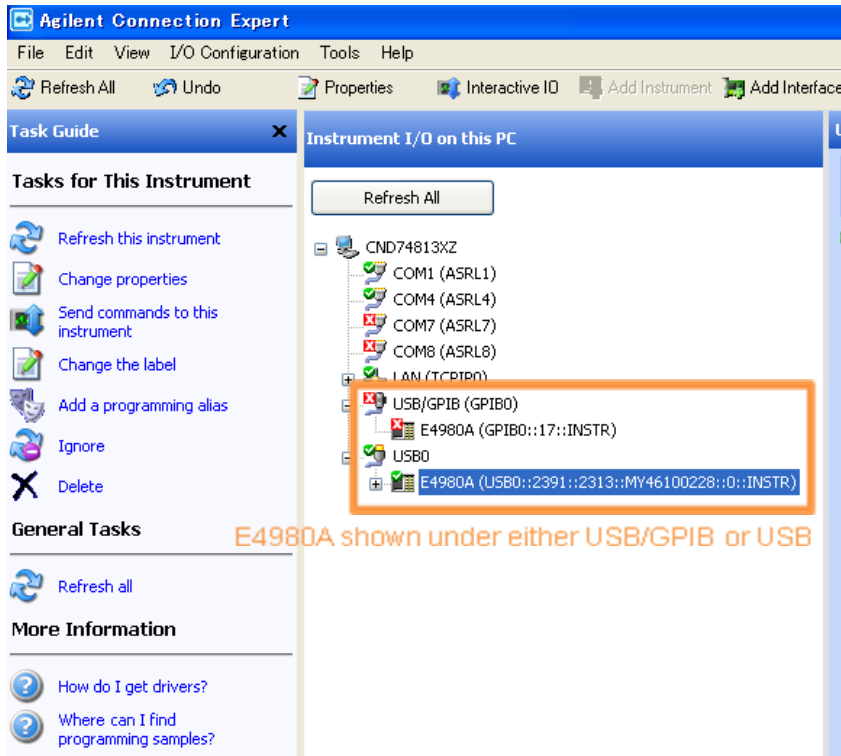
2. Agilent 82357A or 82357B USB/GPIB Interface

2. Connection configuration through Agilent Connection Expert

1. Run Agilent Connection Expert by double-clicking the icon in the task tray



2. Connect the E4980A and the PC using either USB cable or USB/GPIB interface. Then the connection will be automatically configured. After the connection is properly configured, the E4980A appears on “Instrument I/O on this PC” pane of Agilent Connection Expert as shown in the figure below.



3. How to use the program

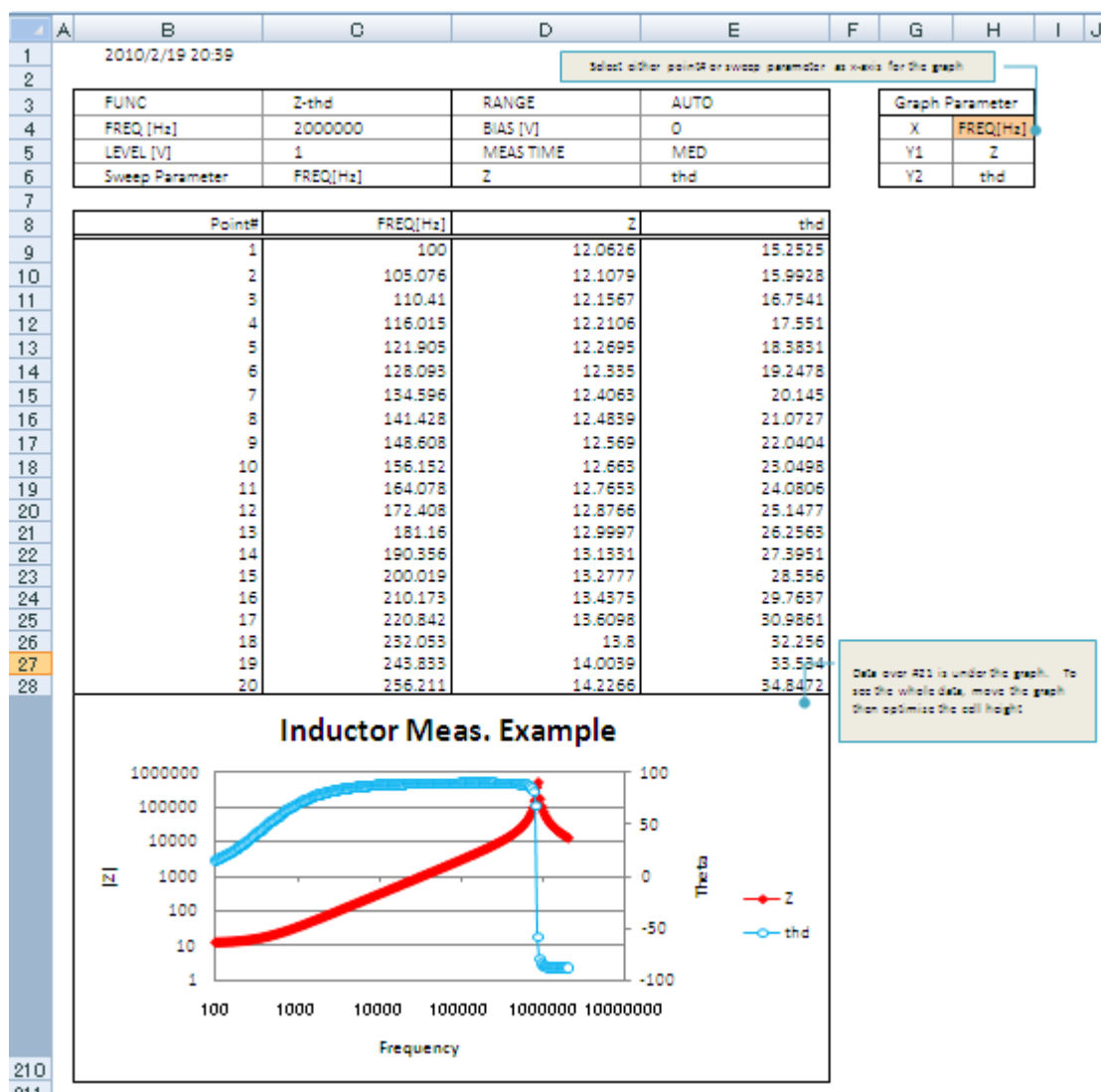
1. Set the measurement conditions for the list sweep, then perform the compensation. The E4980A can sweep frequency, test signal level, DC bias signal level, DC source level up to 201 points with the list sweep function by pressing **Meas Setup** hardkey > **LIST SETUP** softkey.

LIST SWEEP SETUP						MEAS SETUP
MODE	SEQ					
No.	FREQ[Hz]	LMT	LOW	HIGH		CORREC TION
1	100	-	---	---		
2	105.076	-	---	---		
3	110.41	-	---	---		
4	116.015	-	---	---		LIMIT TABLE
5	121.905	-	---	---		
6	128.093	-	---	---		
7	134.596	-	---	---		LIST SETUP
8	141.428	-	---	---		
9	148.608	-	---	---		
10	156.152	-	---	---		
Use softkeys to select						

2. Set the trigger to manual mode by pressing **Meas Setup** hardkey, then cursor down to the **TRIG** field to select **MAN**

<MEAS SETUP>		USER COMMENT		INT
FUNC	Z- θ d	RANGE	AUTO	MAN
FREQ	2 MHz	BIAS	0 V	
LEVEL	1 V	MEAS TIME	MED	
TRIG	MAN	AVG	1	EXT
ALC	OFF	VDC MON	OFF	
DCR RNG	AUTO	IDC MON	OFF	
DCI ISO	OFF	TRIG DLY	0 s	BUS
DCI RNG	200 μ A	STEP DLY	0 s	
DC SRC	0 V	BIAS POL	FIX	
DEV A	OFF	REF A	0 Ω	
B	OFF	B	0 deg	
Use softkeys to select				

3. Perform the single trigger measurement with the DUT by pressing **Display Format** hardkey > **LIST SWEEP** softkey > **Trigger** hardkey
4. Open "E4980A_DataTransfer_xxxx.xls" on the PC. Since this file contains macros, enable "Macros" to boot the program, then follow the "Step-1" and the "Step-2" in the "Main" sheet.
5. On the newly created sheet, choose the graph parameter to show the graph properly (X/Y-axis are changed to Log format in the example below)



Revision History

Revision	Date	Description
01.20	2011/7/5	<ul style="list-style-type: none"> - Function added to return to local mode automatically - Function added to show measurement mode as graph title - Evaluated under Windows 7 and Excel 2010 environment - Other minor improvements implemented
01.00	2010/2/22	Initial revision